



Supporting Continuous Improvement Efforts Through Balanced Assessment Systems: Components, Integration, and High-Leverage Actions

Juan D'Brot, Ph.D.

W. Chris Brandt, Ph.D.

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Region 5 Comprehensive Center

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Introduction

Balanced assessment systems provide feedback and support decisionmaking to improve content-based instruction and learning. When implemented effectively, these systems enable educators to evaluate educational policies and programs, monitor students' learning progress, and make informed decisions that drive instructional effectiveness.

This paper is the second of three. In the first paper, we summarize the key features and essential components of continuous improvement systems and offer guiding principles for designing and implementing continuous improvement systems effectively. This paper summarizes balanced assessment systems' key features and essential components. It explores how balanced assessment systems integrate formative, interim, and summative assessment approaches to create a comprehensive picture of student learning and achievement. Additionally, the paper offers guiding principles for designing and implementing these systems effectively, ensuring alignment with continuous improvement efforts. A third paper will focus on the role of evaluation practices in supporting continuous improvement systems.

Components of a Balanced Assessment System

Balanced assessment systems include three primary types of assessment: formative, interim, and summative (Marion & D'Brot, 2019). Each type serves a distinct purpose within the educational process, and together, they provide a comprehensive picture of student learning and achievement. Notably, state educational agencies (SEAs) and local educational agencies (LEAs) do not necessarily need equal parts of all three assessment types to have balance. To ensure balanced assessment systems function effectively, they must meet five criteria for balance (Marion, Thompson, Evans, Martineau, & Dadey, 2019): coherence, continuity, comprehensiveness, utility, and efficiency. These are described in the section following the description of assessment types.

Formative assessment is integral to the instructional process, serving as a bridge between instruction and assessment. These assessments are designed to be inseparable from teaching, providing real-time feedback that helps educators adjust their instructional strategies to meet students' needs (Heritage, 2010, as cited in Shepard, 2019). Formative assessment has been defined as:



A planned, ongoing **process** used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding of intended disciplinary learning outcomes and support students to become self-directed learners.

(**Formative Assessment for Students and Teachers [FAST] State Collaborative on Assessment and Student Standards [SCASS], 2018, p. 2**)

This definition clarifies that formative assessment is a process better envisioned as part of the classroom instructional system rather than part of the assessment system (Shepard, 2019). Formative assessments contribute to the coherence of a balanced assessment system by aligning with the instructional goals and expected learning progressions within the curriculum.

Interim assessments primarily serve diagnostic, predictive, and evaluative purposes. Administered during the instructional period, these assessments evaluate students' knowledge and skills relative to specific academic goals. Results from interim assessments are typically used to inform decisions at the classroom, school, or district level. Interim assessments support **continuity** by providing aggregated information that allows educators to monitor and evaluate student progress over time (Perie, Marion, & Gong, 2007, p. 6). While many purport that interim assessment is a necessary component of balanced assessment systems, it is easy to overload a system with too many interims, jeopardizing the focus on formative assessment practices.

Summative assessments evaluate student performance at the end of an instructional period, such as a unit of instruction or the school year. These assessments are often used for evaluative purposes, determining whether students have achieved established learning targets. Summative assessments provide a final measure of student achievement that informs broader educational decisions and accountability measures. Because of its prominent role in accountability and reporting, state summative assessments typically play a disproportionate role in most assessment systems. To be clear, "summative" does not pertain solely to state-level tests. For example, most district and classroom assessment systems include a summative component for awarding grades or making competency determinations.

Criteria for Balance in Assessment Systems. In addition to the components listed above, a balanced assessment system should reflect five key criteria. These criteria include coherence, continuity, comprehensiveness, utility, and efficiency, which are described below (Marion et al., 2019):

- » **Coherence:** A coherent assessment system aligns vertically across different levels (classroom to state) and horizontally across curriculum, instruction, and assessment. This ensures that assessments are compatible with the expected learning progressions and instructional practices.



- » **Continuity:** Continuity in assessment systems provides information that tracks student progress over time, allowing educators to monitor progress and identify persistent issues that may require intervention.
- » **Comprehensiveness:** A comprehensive system includes multiple sources of evidence to inform decisionmaking. This ensures student learning is assessed through various methods, providing a fuller picture of students' knowledge and skills.
- » **Utility:** An assessment system's utility is its ability to provide relevant and actionable information to support its intended purposes. This requires an explicit theory of action (Marion, Lyons, & D'Brot, 2016) specifying how assessments will be used to achieve desired outcomes.
- » **Efficiency:** Efficiency involves maximizing the value of assessments while minimizing redundancy and unnecessary testing. An efficient system ensures that each assessment serves a clear purpose and contributes to the educational system's overall goals.

By adhering to these criteria, balanced assessment systems can more effectively support educational decisionmaking, enhance instructional practices, and ultimately improve student learning outcomes.

Integration with Continuous Improvement Systems

Balanced assessment systems are integral to an educational system's broader continuous improvement process. Recent research in the science of learning highlights that multiple factors beyond academic content knowledge influence student achievement and learning. To truly support whole-child development, balanced assessment systems must be aligned with a broader system of data that captures social-emotional, cognitive, and contextual factors that impact learning. A well-rounded data infrastructure that integrates academic assessments with nonacademic indicators, such as social-emotional learning (SEL), school climate, and student engagement, allows educators to design interventions that address the full spectrum of student needs (Darling-Hammond, Flook, Cook-Harvey, Barron, & Osher, 2019). This comprehensive approach supports cognitive development and emotional well-being, which are critical for improving academic outcomes.

Comparing Balanced Assessment and Continuous Improvement Systems. Balanced assessment systems and continuous improvement systems serve complementary roles. While balanced assessment systems focus on providing content-specific data on student learning and performance, continuous improvement systems offer a broader framework for analyzing and addressing the factors influencing educational outcomes. Integrating these systems allows for a more comprehensive approach to school improvement, where assessment data feed directly into the continuous improvement cycle.



For example, teachers may use **formative assessments** to identify immediate instructional needs, which can be addressed by (a) adjusting instruction “on the fly” by reteaching and reinforcing concepts that students didn’t fully understand the first time, or (b) adjusting future lesson plans to address misconceptions. As part of the second strategy, a teacher might research to identify curricular and instructional materials that would aid their effort to reteach for understanding.

Interim assessment data provide insights into student progress, helping educators and administrators adjust strategies midcourse, from one lesson to the next, or even across interim milestones (e.g., end of chapters 3, 6, and 9 in a 12-chapter unit of study). **Summative assessment** data, particularly when aligned with state accountability systems, support long-term planning, help monitor the quality of interventions or programs, and inform policy decisions.

In addition to academic data, nonacademic data such as SEL metrics and school climate indicators—feelings of safety, belonging, and engagement—play a crucial role in informing conditions for learning. Educators can gain a more comprehensive understanding of the whole child by integrating data from formative, interim, and summative assessments with nonacademic indicators. This more holistic view allows schools to address academic performance and the social and emotional factors that impact student success.

For instance, formative data on SEL can help identify students who need support in areas like emotional regulation or peer relationships. In contrast, interim data on school climate can inform midyear adjustments to schoolwide initiatives aimed at improving feelings of safety or belonging. Summative data, when combined with school climate and SEL metrics, can provide long-term insights into how both academic and nonacademic interventions affect overall student well-being and achievement. By connecting these data points with continuous improvement systems, schools and LEAs can ensure that their improvement efforts are both data-driven and responsive to their students’ academic, social, and emotional needs.

Challenges and Solutions

Implementing balanced assessment systems through continuous improvement can be challenging. However, educational leaders can create more effective and efficient assessment systems by recognizing these challenges and developing strategies to address them. Table 1 presents major challenges and example solutions, organized by theme.



Table 1. Challenges and example solutions to implement balanced assessment systems

Challenge	Example solution
Local Control and Coherence. One of the key challenges in implementing balanced assessment systems is the varying levels of local control and the potential lack of coherence across districts. Different districts may have different approaches to assessment, leading to inconsistencies in data collection, interpretation, and use. This can hinder the ability to make meaningful comparisons and informed decisions at the state or regional level.	To address this issue, state educational agencies (SEAs) can provide clear guidelines and frameworks for assessment practices that promote coherence across districts. SEAs can also offer resources and support for districts to align their assessment systems with state standards and continuous improvement goals, ensuring that all students benefit from a consistent and high-quality assessment experience.
Redundancy in Assessments. Another common challenge is the redundancy in assessments, where students are subjected to multiple, overlapping tests that do not necessarily contribute to a clearer understanding of their learning. This not only places an unnecessary burden on students and educators but also undermines the efficiency of the assessment system.	Streamlining assessment practices is essential to eliminate redundancy (Evans, Pinsonneault, & Wylie, 2024). This can be achieved by conducting an audit of existing assessments to identify overlap and areas where assessments can be consolidated (see California Collaborative for Educational Excellence resources). By focusing on assessments that provide unique and valuable insights, schools and local educational agencies (LEAs) can reduce the testing burden while maintaining the comprehensiveness and utility of their balanced assessment systems.
Lack of Coherence. Disjointed assessment practices across different levels of the educational system result in a lack of coherent strategies for data use. This fragmentation can lead to inconsistencies in how data are collected, interpreted, and applied, ultimately limiting the effectiveness of the assessment system in supporting continuous improvement.	To enhance coherence, educational leaders should work toward developing integrated assessment strategies that align across all levels of the educational system—from classrooms to LEAs to SEAs. SEAs can promote coherence by offering professional development, resources, and tools that support consistent data use practices. Encouraging collaboration between LEAs and schools can also help ensure that assessment strategies are aligned, and data are used to drive improvement.
Silos Within and Across Agencies. Departments within and across agencies often operate in isolation, which hinders coordinated efforts to use data effectively. These silos are particularly prevalent across accountability, technology, data, and improvement departments, leading to fragmented approaches to assessment and continuous improvement.	Breaking down silos requires intentional collaboration and communication across departments. SEAs can lead by example, fostering cross-departmental teams that work together to align data use practices and support implementing balanced assessment systems. Establishing regular meetings, shared goals, and joint initiatives can help bridge the gaps between departments, ensuring that all aspects of the educational system are working toward common objectives. Additionally, leveraging technology platforms that facilitate data sharing and communication can further support the integration of efforts across agencies.



High-Leverage Actions for Balanced Assessment Systems

The previous section highlights challenges that lead to sources of imbalance in assessment systems. To address the potential imbalance, Evans and Landl (2024) propose six high-leverage actions that states can take to improve balance in their assessment systems:

- » **State Action 1: Setting a Clear Theory of Action.** SEAs should establish a clear, compelling, and coherent theory of action that aligns assessment with the state's educational vision, school accountability systems, state policies, and graduation requirements. This theory of action should specify the type of assessment information needed by different stakeholders and how it should be utilized. For example, the state summative assessment should primarily monitor school quality rather than direct instructional improvement. Providing high-quality classroom assessment tools and resources is essential to enhance local assessments and teaching.
- » **State Action 2: Clear Communication.** SEAs should clearly communicate the intended role of the state summative assessment and other state-provided resources within balanced assessment systems. Effective communication bridges ideas to implementation, building awareness and buy-in among stakeholders such as parents, students, educators, and leaders. For instance, Connecticut's response to COVID-19 educational disruptions involved using state test data to create targeted tutoring programs, demonstrating effective communication and data use.
- » **State Action 3: Designing for Coherence.** To promote coherence, SEAs should proactively design state content standards, curriculum frameworks, and assessments. They should also use state levers to support a robust vision of teaching, learning, and inclusive educational practices. Engaging diverse stakeholders in the assessment design process ensures cultural validity and inclusivity, promoting curriculum, instruction, and assessment coherence.
- » **State Action 4: Mitigating Misuse.** SEAs should prioritize clear reporting and guidance to mitigate the misuse of state test results. Providing clear guidance to stakeholders on interpreting and using state test results can prevent misuse and ensure the information supports balanced assessment systems. Key strategies include designing high-impact reports with specific users in mind.
- » **State Action 5: Providing Tools and Support.** SEAs can support local assessment systems by offering curriculum and instructional material reviews, a professional learning provider clearinghouse, support for local assessment practices, local assessment system auditing tools, and assessment literacy resources.
- » **State Action 6: Engaging Educator Preparation Programs.** SEAs should integrate assessment literacy principles into educator preparation programs to ensure that new educators are well-prepared and assessment-literate. This includes guiding and embedding assessment literacy within core coursework to ensure that graduates understand the importance of high-quality instructional materials and have the necessary assessment literacy and content knowledge.



Roles of Users and Constituents

It is critical to identify who is responsible for what in order to enact these high-leverage actions. The successful implementation and sustainability of balanced assessment systems depend on the active involvement of key users and constituents, including SEAs, LEAs, and schools. Each of these groups plays a crucial role in ensuring that assessment systems are effective, aligned with broader educational goals, and responsive to the needs of students and educators.

- » **State Educational Agencies (SEAs).** SEAs are responsible for setting the standards and guidelines for balanced assessment systems within their jurisdictions. They provide the overarching framework that ensures coherence across districts and schools, supporting the alignment of assessments with state standards and continuous improvement efforts. SEAs also play a key role in providing professional development and technical assistance to LEAs and schools, helping them implement and sustain balanced assessment systems.
- » **Local Educational Agencies (LEAs) and Schools.** LEAs and schools are on the front lines of implementing balanced assessment systems. They are responsible for selecting, administering, and interpreting assessments in a way that aligns with their specific educational contexts and goals. LEAs and schools must work closely with SEAs to ensure that their assessment practices are consistent with state guidelines while also meeting the unique needs of their students and communities. Collaboration among teachers, administrators, and other school staff is essential to creating a coherent and effective assessment system that supports continuous improvement.

While the roles of SEAs, LEAs, and schools are foundational in establishing balanced assessment systems, the true impact of these systems is best illustrated through real-world examples. Case studies from various educational settings provide insight into how these roles are executed in practice and how balanced assessment systems contribute to broader improvement efforts.

Brief Case Study Examples

We can draw on examples from various educational settings to illustrate the effective implementation of balanced assessment systems within the context of continuous improvement. These brief case study examples highlight how different schools and districts have successfully integrated assessment systems into their broader improvement efforts, demonstrating their potential impact on student outcomes and instructional practices.

Brief Case Study 1: Statewide Alignment in Assessment and Improvement. In a Midwestern state, the Department of Education launched an initiative to align district-level assessment systems with the state's continuous improvement framework. The initiative focused on building coherence



across all levels of the educational system by standardizing assessment practices and ensuring that data from these assessments fed directly into the state’s continuous improvement processes. Table 2 describes the approach and results in this example.

Table 2. Brief case study 1: Statewide alignment

Approach	Results
<ul style="list-style-type: none">■ The state provided districts with an assessment framework that included guidance on using formative, interim, and summative assessments.■ Professional development sessions were conducted to build data literacy among educators, helping them interpret assessment data and apply it to instructional decisions.■ Districts were encouraged to form collaborative teams, including teachers, administrators, and data specialists, to analyze assessment results and identify targeted interventions to address pervasive and large-scale challenges.	<ul style="list-style-type: none">■ The alignment of assessment practices led to greater data collection and reporting consistency across districts, facilitating meaningful comparisons and data-driven decisionmaking at the state level.■ Schools reported improved instructional practices as educators became more proficient in using assessment data to inform their teaching.■ The initiative resulted in measurable improvements in student outcomes, particularly in closing achievement gaps among historically underserved student groups.

Case Study 2: Integrating Balanced Assessment With Technology in a Large Urban District. A large urban school district implemented a balanced assessment system that leveraged technology to provide real-time data access and reporting. The district aimed to create a more dynamic and responsive assessment system to support continuous improvement efforts at both the classroom and district levels. Table 3 outlines the approach and results.



Table 3. Brief case study 2: Integrating balanced assessment with technology

Approach	Results
<ul style="list-style-type: none">■ The district introduced digital dashboards allowing educators to access and analyze assessment data on demand.■ Attendance data can be accessed regularly, as could any captured daily, weekly, or monthly assessments. State summative assessment results were not analyzed in real time, as they are administered once per year.■ Teachers received training on the role of interim assessments and how they could be used to corroborate observations from their formative assessment practices.■ Teachers received training on using the dashboards to monitor student progress, identify areas of need, and adjust their instructional strategies accordingly.■ The district also implemented a feedback loop where teachers could provide input on the effectiveness of the assessment tools and suggest improvements.	<ul style="list-style-type: none">■ Technology-enhanced data collection and analysis efficiency, enabling educators to make timely and informed decisions.■ Teachers used real-time reporting to increase student agency in instructional planning, understanding performance, and assessment planning.■ The district observed a significant increase in student engagement, as the real-time feedback provided by the dashboards allowed for more personalized and responsive instruction.■ Integrating balanced assessment with technology supported the district’s continuous improvement goals by providing a clear and actionable picture of student learning across multiple dimensions.

Conclusion

Balanced assessment systems are essential for supporting continuous improvement in education. By providing a comprehensive and coherent approach to assessing student learning, these systems enable educators to make data-driven decisions that enhance instructional practices and improve student outcomes. Integrating formative assessment practices, interim assessments, and summative assessments ensures that educators have access to the right data at the right time, allowing them to respond to student needs effectively.

However, successfully implementing balanced assessment systems requires careful consideration of key challenges, including maintaining coherence across districts, reducing redundancy in assessments, and ensuring that all users are equipped to use assessment data effectively. These challenges can be addressed through collaboration among SEAs, LEAs, and schools and with the support of technology and professional development, leading to more effective and impactful assessment practices.

As highlighted in the case studies, the potential benefits of well-implemented balanced assessment systems are significant. When aligned with continuous improvement efforts, these systems support instructional decisionmaking and contribute to educational equity and excellence goals. Moving forward, educational leaders need to continue refining and optimizing their assessment systems, ensuring that they remain responsive to the evolving needs of students and educators alike.



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